



CDF Operations Report

Rob Harr

June 7, 2004

All Experimenters Meeting



Previous Week's Stores

Date	Store	Inst Lum (initial)	Delivered Lum [nb ⁻¹]	Lum to tape nb ⁻¹ (ε)	Comment
Su 5/23	3530	68.4e30	3192	2380 (75%)	A.G. losses
Tu 5/25	3532	72.1e30	3143	2237 (71%)	Trigger card, TeV studies
We 5/26	3534	77.4e30	1939	1633 (84%)	LOSTP, power glitch
Su 5/30	3547	26.0e30	761	609 (80%)	RF, Tornado warn
Total			9035	6859 (76%)	



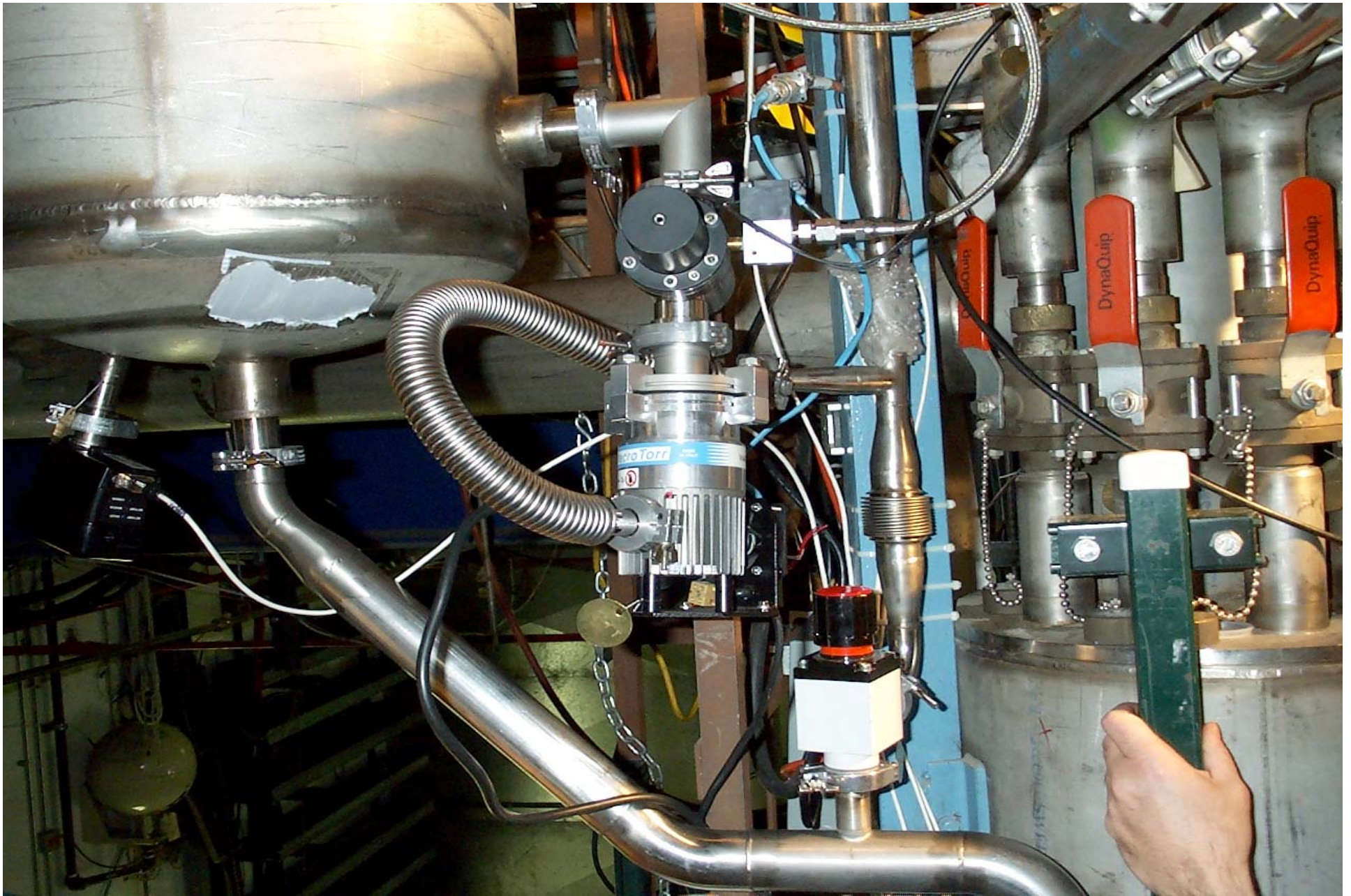
This Week's Stores

Date	Store	Inst Lum (initial)	Delivered Lum [nb ⁻¹]	Lum to tape nb ⁻¹ (ε)	Comment
Mo 5/31	3549	54.5e30	1644	1455 (89%)	Solenoid, Si, COT, TOF off
Tu 6/1	3552	69.1e30	3189	2123 (67%)	Watt can, trigger card, Rtserver, TeV studies
We 6/2	3554	74.1e30	4017	3146 (78%)	Watt can, rescrape, a.g.
Fr 6/4	3558	58.6e30	1686	1337 (79%)	TOF HV, a.g., abort
Su 6/6	3560	77.3e30	3577	2531 (71%)	Trigger card, LOSTP, fib crate, mu&COT trips
Total			14113	10592 (75%)	



Solenoid

- On Sunday, 5/30, we found that valves that allow us to pump on the “Watt can” were not working.
 - The Watt can is the transition between normal and superconducting leads for the solenoid.
 - Access 2am Mon. 5/31 to investigate.
- By opening a manual valve between Watt can and pump, we could pump down the vacuum, but, for safety, only with the solenoid off.
 - Access Mon. evening to fix the control of a different solenoid flow valve.
- Manual pumping done for stores 3552 and 3554 (2hr. / 16hr.)
- Valve replacement done on Fri. 6/4 access.
 - Automatic pumping has worked since.
 - Second (backup) valve still needs to be replaced.



May 17, 2004

Rob Harr, All Experimenters Meeting

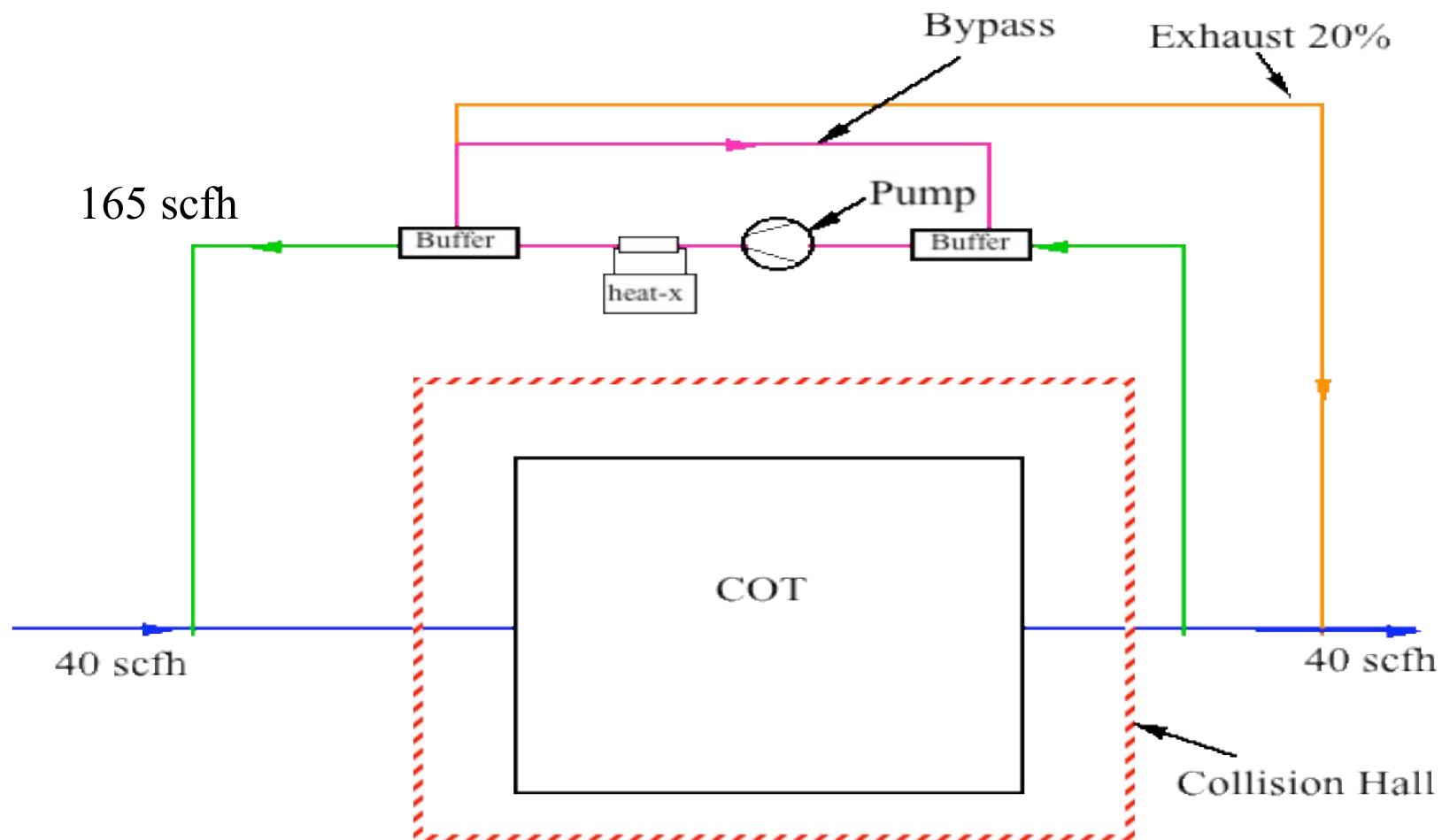


COT Aging

- Gas recirculation system implemented to reduce the potential for deposits on wires.
- After initial problems with O₂ leak and the pump resolved, recirculation system has been operating continuously since May 24.
- Data from six stores are encouraging but inconclusive.
 - I'll not show them this week.
 - More stores are being looked at.
- Other actions, such as use of Ar-CO₂ gas, still being considered
 - Shows good results in test chambers



COT Gas Recirculation





Other Work

- Access: silicon L00 fuses, and other small repairs.
- Roman pots:
 - Hard stops have been installed
 - Insertion/retraction of roman pots tested today.
- Further tests of SVT beam width fitting
 - Some code bugs resolved, good progress.
- New trigger table with a delta z cut in the two-track trigger reduces dead time at high luminosities
 - two-track trigger cross sections reduced by ~50% at level 2.



Summary

- We recovered well from the May 27 power glitch.
- Solenoid valve failure on May 30 was unfortunate timing
 - Occurred during first store after power glitch recovery.
- Valve replacement on Friday was successful.
- In recent stores we've suffered from high or "spikey" proton losses
 - Frequent trips of muon chambers
- COT behavior with the gas recirculation system is encouraging, but we'd like to look at additional data before making a statement.